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*Via Electronic Submission*

December 23, 2002

Ms. Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, S.W.  
Washington, D.C. 20554

RE: **Memorandum of *Ex Parte* Communication**

CC Docket No. 01-338, Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers

CC Docket No. 96-98, Implementation of the Local Competition Provisions in the Telecommunications Act of 1996

CC Docket No. 98-147, Deployment of Wireline Services Offering Advanced Telecommunications Capability

Dear Ms. Dortch:

In an *Ex Parte* dated December 20, 2002, LDMI Telecommunications argued that The Equipment Used by Smaller Businesses to Interconnect With Telecommunications Networks Must be Considered as an Impairment Criterion for business ULS and business UNE-P.

The attached white paper from LDMI on this subject, "Impairment of Business ULS: An Analysis", gives further evidence to the Commission as to this impairment.

Respectfully submitted,

LDMI TELECOMMUNICATIONS, INC.

/s/ Jerry Finefrock  
Jerry Finefrock  
Vice President Regulatory Affairs

Attachment

cc: Chris Libertelli, Matt Brill, Jordan Goldstein, Dan Gonzalez, Lisa Zaina, William Maher, Jeff Carlisle, Scott Bergmann, Rich Lerner, Michelle Carey, Brent Olson, Tom Navin, Jeremy Miller, Rob Tanner, Dan Shiaman, Steve Morris

# **Impairment of Business ULS: An Analysis**

Jerry Finefrock  
LDMI Telecommunications, Inc.  
December 23, 2002

## Executive Summary.

Impairment exists in the provision of local telephone service to businesses, relative to ULS and UNE-P, typically when the number of lines being delivered to the business customer's location is less than 50 lines. Under these circumstances, the impairment is the same as exists on ULS and UNE-P to residential customer locations.

The FCC must acknowledge and deal with this impairment in conjunction with any proposed change to the UNE list, or rules and procedures for ULS and UNE-P service.

## Background and Experience.

These comments were prepared by Jerry W. Finefrock, Vice President of Regulatory Affairs for LDMI Telecommunications, Inc. of Michigan. LDMI is the largest telecom firm headquartered in Michigan, and Mr. Finefrock is the founder of the firm. Mr. Finefrock has over 35 years experience in the telecommunications industry.

Mr. Finefrock has six years experience as an independent telecommunications consultant to businesses, regarding telephone system purchases, line and system configuration, and cost-effectiveness determination. Following the publication of a successful series of articles on telephone traffic engineering as applicable to customer telephone systems,

he established a telecommunications analysis organization at the original Sprint company, providing assistance to business customers. He then managed the traffic engineering, network architecture and network routing for first the Sprint network nationwide, and then Lexitel and Allnet in a similar capacity. Following LDMI establishing facilities-based operations in 1992, he served as principal technical advisor to customers regarding their telephone systems and interconnection to IXC networks, for the next five years.

#### Detailed Comments.

Other parties have suggested that impairments may exist on business ULS where the quantity of lines is 4-, 8-, 12- or 24-lines at a customer location. Some of these analyses have been prepared by lawyers, economists, statisticians, and others who may lack the real-world experience necessary to truly guide the FCC in these matters. It is clear that impairment typically exists at even higher customer line levels, and this document will help to describe these conditions in words the lay person can easily understand.

The following is a hypothetical example of a conversation between an economist working for the local phone company, and a business telephone user, concerning ULS/UNE-P:

ECONOMIST: We have really good news for you. We've conducted an economic analysis, and determined that we can cost-effectively offer service from our CLEC switch to your customer location via T1 digital facilities, thus bypassing the need for ULS, UNE-P or other such switched connections.

BUSINESS TELEPHONE CUSTOMER. Look, as you know, I've got 30 local phone lines at my location, and you claim you can deliver my dial tone over T1 facilities. But you see, my phone system is a key system. There's no place to plug in a T1 to the key system. So how are you actually going to provide service?

ECONOMIST: But that's a digital key system you've got. I just assumed that all those digital phone systems had the capability to plug in a T1.

BUSINESS: Well, that's where you're wrong. When we went to order this phone system five years ago, we told the RBOC we wanted them to deliver

the local dial tone on digital facilities. And the RBOC told us “Fine, but that’ll cost you extra – a *lot* extra. Hundreds of dollars a month extra”. We asked them why, since their costs are lower when they deliver the service digitally, and they said, “because that’s the way we’ve been doing it, for over twenty years”. So then we talked to the key system manufacturer, and asked them about the digital interface. They said they provide a digital interface in Japan and other countries where the local phone company offers dial tone on digital without extra cost, but because of RBOC policies that result in significant extra charges in this situation in the U.S., they decided to offer only an analog interface in the U.S. – no one was ordering the digital interface, because of the added RBOC costs.

ECONOMIST: Well, we could put in a channel bank, and convert the digital T1 signal to analog, and then connect it to your key system.

BUSINESS: And what if power fails? Does your channel bank have battery backup?

ECONOMIST: Sorry, no. Your phone system will go out of service.

BUSINESS: And who’s going to pay for this channel bank? The capital cost for a T1 channel bank can be \$4,000 or so, they tell me. Who’s going to pay for that?

ECONOMIST: Well, we didn’t figure a channel bank into our economic crossover. I guess you have to pay for it.

BUSINESS: Capital dollars are scarce. I rent phone equipment, I don’t buy it. What’s the rental rate?

ECONOMIST: Well, SBC in your state will rent a channel bank, which they call “DS1 to Voice/Base Rate Multiplexing”, month-to-month, for \$440 a month in Zone 1, up through \$530 per month in Zone 5<sup>1</sup>. And we will match those prices. What Zone are you in, by the way?

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<sup>1</sup> Ameritech Operating Companies, Tariff F.C.C. No. 2, 36<sup>th</sup> Revised Page 413, Effective November 18, 2000.

BUSINESS: You've got to be kidding. That's greater by far than the cost savings you said you could deliver. That would substantially increase my current phone costs. Why would I want to do that?

ECONOMIST: To get our great digital quality?

BUSINESS: Provided to me on an analog-converted connection, with no battery backup? And by the way, of the 30 local phone lines that we have here, only 18 of them tie down to the key system. I have other business lines which are on the desks of our executives, and in the event of a power failure, those lines still work. And what about my five fax lines? How are you going to supply them? I can never afford to miss a fax from a customer. And my modem lines on the computers. And what about the fact that I have 30 lines, and only 24 will fit on a T1 – are you going to put in two T1s?

ECONOMIST: Oh no, two T1s wouldn't economically prove in. We figured to handle just 24 of your lines, and you could leave the other six lines with your existing local phone supplier.

BUSINESS: And get two different local phone bills, from two different local phone suppliers? You've got to be kidding. Here's the door. It's analog, but I'll be happy to show you how to use it.

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On December 20, 2002, LDMI submitted an *Ex Parte* in this proceeding, explaining the impairment experienced in circumstances where business customers have 50 local phone lines or less at a particular location. The above example gives a vivid example of the actual conditions that business customers experience.

The December 20 *Ex Parte* included white papers on the topic by Richard A. Kuehn, a noted telecommunications writer and consultant to businesses; Margi Shaw, an executive from CIMCO Communications, a CLEC specializing in providing CLEC services to larger business customers, where the 50-line size often comes into question; and Craig Siwy, telecommunications principal at Telecom Insight, LLC, a telecommunications consultant operating in SBC Ameritech territory. All three white papers show why, below about 50-lines, business customers experience the same impairment on ULS and UNE-P as do residential customers.

As Richard Kuehn notes regarding conventional key systems, in the “12 to 18” line maximum range, “the use of a... T-1 central office connection would not be economical at this size...”, and regarding hybrid key systems that handle larger key system users, “Again, because of the nature of the customer base the manufacturers traditionally have not provided capability for the direct connection of DS-1 or T-1 channels to the telephone system. While in this case the probable number of business lines could exceed the quantity necessary to justify the installation of this T-1 channel, the inability to directly connect it to the telephone system would present problems.” It is only on PBX systems, which “begin at approximately a 50 to 75-instrument size” that the phone system is “typically served utilizing T-1 trunk access”. Mr. Kuehn recommends that the impairment does not cease to exist until the quantity at a customer location reaches or exceeds “40 to 80 business lines”.

Mr. Siwy of Telecom Insight LLC notes, “Telecom Insight, in its experience, does not know of a single conventional key system or lower end hybrid customer who has contracted for a direct T-1 connection to a CLEC solely for the purpose of reducing its local telephone expense, or choosing an alternative local telephone supplier... the time, bother and risk of installing a T-1 are not worth it to the customer unless the savings are significant...an appropriate range for setting the ULS line limit would be in the range of 40 to 60 lines at a customer premises.”

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Conclusion. The impairments on business ULS and UNE-P are based on real-world business customer telephone system constraints and business decisions, not the theoretical calculations of economists or statisticians. Business ULS and UNE-P continue to be impaired at significantly higher line quantities than the 8-, 12- or 24- line limits suggested by other parties. Business ULS is impaired, most typically, when the number of lines at the customer location is less than 50.